

DETAILED ACTION

1. Applicant's Appeal Brief of August 14, 2008 has been fully and carefully considered. An appeal brief conference was conducted and during this conference it was decided that applicant's arguments were persuasive with respect to deficiencies of Autentrieth's modular reactor.

The following is an examiner's statement of reasons for allowance: The prior art fails to teach and or suggest the claimed reactor and heat exchanger having layers arranged in a stack, which layers are formed by the pressing of catalyst material, the stack includes separator devices which divide the reactor into a plurality of function areas the layers are arranged between a lower end plate and upper end plate. Insulating plates are provided between the end plates and layers which are respectively adjacent to the end plates. There are dependent claims which recites the material of the endplates, as well as the clamping devices/tie rods as well as insulating layer which are located laterally surrounding the stack. The endplate and insulation at the endplates have not been taught by Autentreith. Upon updating the search in preparation for the appeal conference, there were prior art document to Watkins et al. USP 5,209,906 and which teach a modular isothermal reactor (vertical arrangement) which includes some of applicant's claimed elements of the reactor such as the endplates and tie rod arrangement however does not teach the insulating plates and the separator devices between functional areas or specific stack arrangement wherein the stack is formed by pressing of catalyst material. Pow et al., USP 5,456,889 teaches a reactor which is used in reforming and pre-reforming reactions which has a modular construction having different functional areas but there is no teaching of insulating at the endplates and no teaching of the separators or insulators between function areas. It was discussed that it would only be in hindsight to combine the references in order to come up with applicant's reactor which is not permitted and

Art Unit: 1797

as claimed applicant's modular reactor has not been taught either singularly or in combination by the prior art. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Bhat whose telephone number is 571-272-1397. The examiner can normally be reached on Monday-Friday, 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. Bhat/
Primary Examiner, Art Unit 1797